



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/030,278	04/09/2002	Susanne Kessler	1951	9010

7590 04/19/2006
Striker Striker & Stenby
103 East Neck Road
Huntington, NY 11743

EXAMINER

STITZEL, DAVID PAUL

ART UNIT	PAPER NUMBER
----------	--------------

1616

DATE MAILED: 04/19/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/030,278	KESSLER ET AL.	
	Examiner	Art Unit	
	David P. Stitzel, Esq.	1616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 November 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 10-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 10-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

OFFICIAL ACTION

Acknowledgment of Receipt

Receipt of the Applicants' Response, to the Official Action dated July 5, 2005, which was filed on November 1, 2005, is acknowledged.

Status of Claims

Claims 1-9 were canceled, and claims 10-20 were added, by an amendment filed on March 25, 2004. In addition, claims 10-11 and 16-17 were amended, and claims 21-24 were added, by an amendment filed on November 12, 2004. Furthermore, claims 10-13, 19, 21 and 22 were amended, by an amendment that accompanied the aforementioned Response. As a result, claims 10-24 are currently pending and therefore examined herein on the merits for patentability.

Specification Objection

In light of Applicants amendment to the specification, incorporating the limitations recited in claim 21 as originally filed, the specification objection is hereby withdrawn.

Claim Rejections - 35 U.S.C. § 112, Second Paragraph

The following is a quotation of the second paragraph of 35 U.S.C. § 112, which forms the basis of the claim rejections as set forth under this particular section of the Official Action:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

The rejection of claims 13, 14 and 19 under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention, is maintained. More specifically, Applicants have amended claims 13 and 19 to recite, in relevant part, that the bioactive glass particles do in fact "contain at least one toxic metal

cation, but only in amounts such that *toxic concentrations* of said at least one toxic metal cation are not released.” Emphasis added. However, confusion exists with respect to the claim limitation of “toxic concentrations,” as the term “toxic concentrations” is a relative term that is species specific. That is, at least one toxic metal cation may be present in a particular amount that is considered to be a toxic concentration for a given organism, such as a bacterium, but considered to be a non-toxic concentration at the same aforementioned particular amount for a different organism, such as a human. In an effort to seek clarity for the aforementioned vague and indefinite claims, reference was made to the instant specification for an explicit definition of the term “toxic concentrations” and what constitutes a toxic concentration for various enumerated organisms, however the term “toxic concentrations” is not defined within the instant specification. In the event that a definition of the term “toxic concentrations” does in fact exist within the instant specification, Applicants are cordially invited to direct the Examiners attention thereto. Claim 14 is indefinite because said claim is dependent upon indefinite claim 13.

Provisional Nonstatutory Double Patenting Claim Rejections With Secondary References

The terminal disclaimer filed on November 1, 2005, disclaiming the terminal portion of any patent granted on this application, which would extend beyond the expiration date of any U.S. Patent granted on U.S. Patent Application Serial Number 2002/0086039, has been reviewed and is accepted. The terminal disclaimer has been recorded.

Claim Rejections - 35 U.S.C. § 102

The following is a quotation of the appropriate paragraph of 35 U.S.C. § 102, which forms the basis of the anticipation rejections as set forth under this particular section of the Official Action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 10-14 and 21-24 are rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent 5,290,544 (hereinafter the "Shimono '544 patent").

With respect to claims 10-12 of the instant application, the Shimono '544 patent discloses a method of preserving a perishable cosmetic preparation comprising the step of adding an effective amount of bioactive glass particles to said preparation to impart bactericidal properties to said preparation; wherein said bioactive glass particles are present in an amount of: less than or equal to 2.5 % by weight of said preparation; and from 0.5 to 2.5 % by weight of said preparation (column 1, lines 11-14 and 38-41; column 3, line 36; column 4, line 18; column 5, line 33; column 6, line 17; and column 7, line 9); wherein said bioactive glass particles have a diameter of about 20 μm or less, preferably less than or equal to 10 μm , and more preferably less than or equal to 5 μm (abstract; column 2, lines 45-61; column 3, line 47; column 4, line 32; column 6, line 33; column 7, line 27; and claim 1).

With respect to claims 13 and 14 of the instant application, the Shimono '544 patent discloses a method of preserving a perishable cosmetic preparation, wherein bioactive glass particles contain diphosphorous pentoxide (P_2O_5) in an amount of 50 mole % of said bioactive glass particles (column 4, line 27; column 6, line 28; and column 7, line 21), and said bioactive glass particles do not contain or release at least one toxic metal cation selected from the group consisting of Ag^+ , Cu^{2+} , Cu^+ and Zn^{2+} , in toxic concentrations with respect to bacterial and fungal organisms, while maintaining a high degree of safety and not causing skin irritations to a human when said cosmetic preparation is directly applied to the epithelial tissue thereof (abstract; column 1, lines 6-16 and 46-53; column 2, lines 3-44;

column 3, lines 3-11 and 36; column 4, line 18; column 5, line 33; column 6, line 17; column 7, line 9; and claim 1).

With respect to claims 21-23 of the instant application, the Shimono '544 patent discloses a bactericidal cosmetic preparation comprising an effective amount of bioactive glass particles so as to impart bactericidal properties to said preparation; wherein said bioactive glass particles are present in an amount of less than or equal to 2.5 % by weight of said preparation (column 1, lines 11-14 and 38-41; column 3, line 36; column 4, line 18; column 5, line 33; column 6, line 17; and column 7, line 9); wherein said bioactive glass particles have a diameter of about 20 μm or less, preferably less than or equal to 10 μm , and more preferably less than or equal to 5 μm (abstract; column 2, lines 45-61; column 3, line 47; column 4, line 32; column 6, line 33; column 7, line 27; and claim 1).

With respect to claim 24 of the instant application, the Shimono '544 patent discloses a bactericidal cosmetic preparation, wherein said preparation comprises cosmetic skin lotion (skin cream is a species within the genus of skin lotion), make-up (i.e., foundation and eye shadow) and lipstick (column 2, lines 45-55 and 62-64; and claim 1).

Claim Rejections - 35 U.S.C. § 103

The following is a quotation of the appropriate paragraph of 35 U.S.C. § 103, which forms the basis of the obviousness rejections as set forth under this particular section of the Official Action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 15 and 20 are rejected under 35 U.S.C. § 103(a) as being unpatentable over the Shimono '544 patent in view of the International Application Publication Number WO 98/11853 (hereinafter the "Greenspan '853 publication").

With respect to claims 15 and 20 of the instant application, the Shimono '544 patent teaches a method and composition for preserving a perishable cosmetic preparation with an effective amount of bioactive glass particles added to said preparation so to impart bactericidal properties to said preparation. Although the bioactive glass particles, as taught in the Shimono '544 patent, contain an overwhelming majority of the aforementioned inorganic compounds and in similar amounts with respect to said bioactive glass particles, CaF_2 is notably absent and the disclosed amounts of said inorganic compounds, although similar in nature, are not always overlapping in numerical value (column 3, lines 41-42; column 4, lines 26-27; column 6, lines 27-28; and column 7, lines 20-21).

On the other hand, the Greenspan '853 publication teaches a method and composition for protecting skin wounds from infection with an effective amount of a bactericidal bioactive glass composition comprising bioactive glass particles (page 1, lines 3 and 4 of paragraph 1; page 3, lines 1-3 of paragraph 2; page 9, lines 1-7 of paragraph 1; page 10 in its entirety; page 11, lines 1 and 2 of paragraph 3; page 12, lines 1-13 of paragraph 3; and claims 1-2 and 16) having diameters of less than or equal to 90 μm , less than or equal to 10 μm , and less than or equal to 2 μm (page 11, lines 1-3 of paragraph 1; and claims 3-5) and one or more common topical antibiotics, such as neomycin and polymyxin B (page 11, lines 1-7 of paragraph 2; and claims 6, 9 and 14); wherein said bioactive glass particles contain the exact same inorganic compounds in the exact same % by weight as those recited in claims 15 and 20 of the instant application, namely: 40-60 wt. % of SiO_2 ; 10-30 wt. % of CaO ; 10-

35 wt. % of Na_2O ; 2-8 wt. % of P_2O_5 ; 0-25 wt. % of CaF_2 ; 0-10 wt. % of B_2O_3 ; 0-8 wt. % of K_2O ; and 0-5 wt. % of MgO .

However, the Greenspan '853 publication does not explicitly teach incorporating said bioactive glass particles, either alone or in combination with one or more common topical antibiotics, into a cosmetic preparation for the specific purpose of imparting bactericidal protection to the cosmetic preparation itself. It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was filed to incorporate the bactericidal bioactive glass particles or composition, as taught by the Greenspan '853 publication, into a perishable cosmetic preparation, as taught by the Shimono '544 patent. Even though the Greenspan '853 publication does not specifically teach incorporating said bactericidal bioactive glass particles or composition into a cosmetic preparation, so as to preserve said preparation by imparting bactericidal protection against invading bacteria introduced by a consumer during usage of said preparation, sufficient motivation to do so exists, as the Greenspan '853 publication explicitly teaches that the bactericidal bioactive glass particles and composition as disclosed therein are efficacious at imparting bactericidal protection against invading bacteria associated with the outer epithelial tissue layer of the skin. In addition, one of ordinary skill in the art at the time the instant application was filed would have had a reasonable expectation of success at preserving the perishable cosmetic preparation (as taught in the Shimono '544 patent) by imparting (via the addition of the bactericidal bioactive glass particles or composition taught in the Greenspan '853 publication) bactericidal protection to said cosmetic preparation against invading bacteria introduced into said cosmetic preparation by the outer epithelial tissue layer of the skin of a consumer during usage of said cosmetic preparation.

2. Claims 16-19 are rejected under 35 U.S.C. § 103(a) as being unpatentable over the Shimono '544 patent, in further view of: Yamanaka et al., "Enzymatic Activity of Glucose Oxidase Encapsulated in Transparent Glass by the Sol-Gel Method," *Chemistry of Materials*, 4(3):495-497 (1992) (hereinafter the "Yamanaka publication"); Wu et al., "Bacteriorhodopsin Encapsulated in Transparent Sol-Gel Glass: A New Biomaterial," *Chemistry of Materials*, 5(1):115-120 (1993) (hereinafter the "Wu publication"); and Wang et al., "Affinity of Antifluorescein Antibodies Encapsulated Within a Transparent Sol-Gel Glass," *Analytical Chemistry*, 65(19):2671-2675 (1993) (hereinafter the "Wang publication").

With respect to claim 16 of the instant application, the Shimono '544 patent teaches a bactericidal cosmetic preparation comprising an effective amount of bioactive glass particles so as to impart bactericidal properties to said preparation. The Shimono '544 patent does not explicitly teach bioactive glass particles having a refractive index sufficiently close to that of a liquid carrier so that said bioactive glass particles do not effectuate the appearance of said bactericidal cosmetic composition are therefore substantially transparent to a consumer. However, the aforementioned secondary references, namely the Yamanaka publication, the Wu publication, and the Wang publication, teach bioactive glass particles having a refractive index sufficient to impart a physical property of transparency to said bioactive glass particles. It would have been prima facie obvious to one of ordinary skill in the art at the time the instant application was filed to modify the bioactive glass particle containing bactericidal cosmetic preparation of the Shimono '544 patent with the teachings of the aforementioned secondary references, namely the Yamanaka publication, the Wu publication, and the Wang publication, to produce a bactericidal cosmetic preparation comprising bioactive glass particles having a refractive index sufficiently close to that of a liquid carrier so as to impart an

undetectable transparent, and therefore “invisible,” physical property to said bioactive glass particles within said bactericidal cosmetic composition. A manufacturer of cosmetic preparations would immediately recognize the benefit of producing a bactericidal cosmetic composition that is more aesthetically pleasing in appearance to conscientious cosmetic consumers by making the bioactive glass particles, which are contained within said cosmetic composition, undetectable. As a result, motivation and economic incentive exists for a manufacturer of a bactericidal cosmetic preparation to modify the refractive index of the transparent bioactive glass particles contained therein, so as to match the refractive index of said liquid carrier, thereby maintaining the transparent nature of said bioactive glass particles and imparting an “invisible” and therefore undetectable physical property to said bioactive glass particles, which are present within said bactericidal cosmetic composition.

With respect to claims 16 and 17 of the instant application, the Shimono ‘544 patent teaches a bactericidal cosmetic preparation comprising an effective amount of bioactive glass particles to said preparation to impart bactericidal properties to said preparation, wherein said bioactive glass particles are present in an amount of less than or equal to 2.5 % by weight of said preparation (column 1, lines 11-14 and 38-41; column 3, line 36; column 4, line 18; column 5, line 33; column 6, line 17; and column 7, line 9) and said bioactive glass particles have a diameter of about 20 μm or less, preferably less than or equal to 10 μm , and more preferably less than or equal to 5 μm (abstract; column 2, lines 45-61; column 3, line 47; column 4, line 32; column 6, line 33; column 7, line 27; and claim 1).

With respect to claim 18 of the instant application, the Shimono ‘544 patent teaches a bactericidal cosmetic preparation, wherein bioactive glass particles contain diphosphorous pentoxide (P_2O_5) in an amount of 50 mole % of said bioactive glass particles (column 4, line 27; column 6, line 28; and column 7, line 21).

With respect to claim 19 of the instant application, the Shimono '544 patent teaches a bactericidal cosmetic preparation, wherein bioactive glass particles do not contain or release at least one toxic metal cation selected from the group consisting of Ag^+ , Cu^{2+} , Cu^+ and Zn^{2+} , in toxic concentrations with respect to bacterial and fungal organisms, while maintaining a high degree of safety and not causing skin irritations to a human when said cosmetic preparation is directly applied to the epithelial tissue thereof (abstract; column 1, lines 6-16 and 46-53; column 2, lines 3-44; column 3, lines 3-11 and 36; column 4, line 18; column 5, line 33; column 6, line 17; column 7, line 9; and claim 1).

Examiner's Response to Applicant's Remarks

Although Applicants' arguments filed on November 1, 2005, have been fully considered, they are not persuasive.

1. 35 U.S.C. § 102(b) Anticipation Rejections of Claims 10-14 and 21-24 Based on the Shimono '544 patent

Applicants argue, on page 11, lines 10-12, of the aforementioned Response, that the "soluble glass" disclosed in the Shimono '544 patent is not a "bioactive glass" as instantly claimed, and that the Shimono '544 patent neither characterizes the "soluble glass" as a "bioactive glass," nor does the term "bioactive glass" appear anywhere within the Shimono '544 patent. In response to Applicants arguments, just because the Shimono '544 patent does not characterize the "soluble glass" as being a "bioactive glass," per se, does not render the soluble glass disclosed therein biologically inactive. To the contrary, the soluble glass of the Shimono '544 patent is in fact bioactive, as said soluble glass is disclosed as possessing and exhibiting antibacterial and antifungal properties and effects (column 1, lines 46-56; column 2, lines 26-30).

Applicants argue, on page 11, lines 13-16, of the aforementioned Response, that unlike the instantly claimed “bioactive glass,” the “soluble glass” disclosed in the Shimono ‘544 patent would not exhibit antimicrobial effects once all of the toxic silver cations contained within “soluble glass” have been released therefrom. In response to Applicants arguments, each and every limitation claimed within claims 10-14 and 21-24 of the instant application is anticipated by the Shimono ‘544 patent (as previously discussed in greater detail) and as a result, the “soluble glass” of the Shimono ‘544 patent must therefore inherently possess chemical properties identical to those of the instantly claimed “bioactive glass,” since a composition and its chemical properties are inseparable.

Applicants argue, on page 11, lines 17-19, of the aforementioned Response, that the instantly claimed “bioactive glass” exhibits antimicrobial effects without the presence of toxic metal cations (e.g., toxic silver cations). In response to Applicants arguments, the limitations within claims 13 and 14 of the instant application recite that the instantly claimed “bioactive glass” does in fact contain at least one toxic metal cation, such as a toxic silver cation, which presumably exhibits antimicrobial effects.

Applicants are arguing, on page 12, lines 1-19, of the aforementioned Response, limitations recited in claims 15 and 20, which are not rejected under 35 U.S.C. 102(b) as being anticipated by the Shimono ‘544 patent.

Applicants argue, on page 12, line 12, of the aforementioned Response, that the instant “specification defines ‘bioactive glass’.” To the contrary however, the instant specification characterizes the term “bioactive glass” in a general, non-specific, sense. For example, page 3, lines 7-11, of the instant specification characterize the term “bioactive glass” broadly as being a “bioactive silicon-containing glass” that “*can be* ... derived from a mixture of silicon oxide or silicon hydroxide

and *one or more elements of the group comprising* sodium, potassium, calcium, magnesium, boron, titanium, aluminum as well as anions containing nitrogen, phosphorus and fluorine.” In addition, page 3, lines 17-20, of the instant specification is replete with general, non-specific, language characterizing the term “bioactive glass,” such as “preferably,” “usually contain,” and “in most, but not necessarily all, cases.” Therefore, the terms “bioactive glass” and “bioactivity” are in fact not specifically defined within the instant specification. As a result, without the existence of a precise and explicit definition within the originally filed specification, the terms “bioactive glass” and “bioactivity” should be given their broadest reasonable interpretation consistent with the instant specification.

Applicants argue, on page 12, line 20, of the aforementioned Response, that unlike the “bioactive glass” of the instant application, the “soluble glass” of the Shimono ‘544 patent does not form a hydroxyapatite layer. However, the instant specification (page 3, lines 1-11) describes a “sol-gel glass,” which “contains a high amount of silicon oxide and a small amount of sodium,” as being an example of a “bioactive glass” that is “soluble in aqueous media” and “forms a layer of hydroxyapatite” on the surface thereof. The Shimono ‘544 patent likewise discloses a “soluble glass” composition that is similar, if not identical, to the “sol-gel glass” composition described in the instant specification, as the “soluble glass” of the Shimono ‘544 patent likewise comprises a high amount of silicon oxide and a small amount of sodium (column 3, lines 41-43, Example 1). Therefore, the “soluble glass” of the Shimono ‘544 patent must inherently possess chemical properties (i.e., be soluble in aqueous media, as well as form a hydroxyapatite layer on the surface thereof) identical to those of the instantly disclosed “sol-gel [bioactive] glass,” since a composition and its chemical properties are inseparable. The “discovery of a previously unappreciated property of a prior art composition, or of a scientific explanation for the prior art’s functioning, does not render the old

composition patentably new to the discoverer.” See *Atlas Powder Co. v. Ireco Inc.*, 51 USPQ 2d 1943, 1947 (Fed. Cir. 1999). Therefore, merely claiming a new use, new function or unknown property, which is inherently present in the prior art, does not necessarily make the claim patentable. See *In re Best*, 195 USPQ 430, 433 (CCPA 1977); and MPEP § 2112. Furthermore “products of identical chemical composition can not have mutually exclusive properties,” since a chemical composition and its properties are inseparable. See *In re Spada*, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990); and MPEP § 2112. Therefore, if the prior art teaches the identical chemical composition, the properties Applicant discloses and/or claims are necessarily present. See MPEP § 2112.

2. 35 U.S.C. § 103(a) Obviousness Rejections of Claims 15 and 20 Based on the Shimono ‘544 patent in View of the Greenspan ‘853 publication.

Applicants argue, on page 15, lines 13-14, and page 16, lines 11-14, of the aforementioned Response, that the Greenspan ‘853 publication “does not suggest that the bioactive glass has an antibacterial or antimicrobial action itself ...” and that the Greenspan ‘853 publication “does not disclose that the bioactive glass ... has antimicrobial or antibiotic activity itself ... and does not mention any antimicrobial action.” To the contrary, the Greenspan ‘853 publication explicitly states that the particulate bioactive glass possesses a high degree of reactivity and bacteriostatic effects (page 12, lines 11-15 and 19-22).

Applicants argue, on page 17, lines 4-8, of the aforementioned Response, that neither the Shimono ‘544 patent, nor the Greenspan ‘853 publication, render obvious the limitation within claim 20, which is dependent upon claim 16, reciting that said cosmetic preparation comprises a liquid other than alcohol. To the contrary, there is no explicit teaching within the Greenspan ‘853 publication that an alcohol need be present within the bactericidal bioactive glass composition. In fact, the Greenspan

'853 publication explicitly provides a number of particularly preferred pharmaceutically acceptable carriers, such as white petroleum and mineral oil (of which an alcohol is notably absent), for incorporation into said bactericidal bioactive glass composition. In addition, Applicants focus solely on example 3 of the Shimono '544 patent, which happens to include an alcohol (i.e., ethanol and glycerin) into the bactericidal cosmetic preparation. However, the Shimono '544 patent teaches either aqueous, or non-aqueous but moisture absorbing, bactericidal cosmetic preparations that either have no explicit recitation that alcohol need be present, or do not contain any alcohol whatsoever in the list of ingredients comprising said bactericidal cosmetic preparation (column 2, lines 45-55 and 65-68; column 3, lines 1-2 and 29-47, example 1; column 4, lines 3-32, example 2; column 4, lines 60-68 and column 5, lines 1-14, comparison 1; column 5, lines 19-38, comparison 2).

3. ***35 U.S.C. § 103(a) Obviousness Rejections of Claims 16-19 Based on the Shimono '544 patent in Further View of the Yamanaka publication, the Wu publication, and the Wang publication***

Applicants are arguing, on page 18, lines 10-23, and page 19, lines 1-16, of the aforementioned Response, limitations recited in claims 15 and 20, which are not rejected under 35 U.S.C. 103(a) as being unpatentable over the Shimono '544 patent in further view of the Yamanaka publication, the Wu publication, and the Wang publication.

Applicants argue, on page 19, lines 17-23, and page 20, lines 1-20, of the aforementioned Response, that neither the Shimono '544 patent, the Yamanaka publication, the Wu publication, nor the Wang publication, suggest a cosmetic composition comprising bioactive glass particles and a liquid other than alcohol. To the contrary, the Shimono '544 patent teaches either aqueous, or non-aqueous but moisture absorbing, bactericidal cosmetic preparations that either have no explicit recitation that alcohol need be present, or do not contain any alcohol whatsoever in the list of ingredients comprising

said bactericidal cosmetic preparation (*column 2, lines 45-55 and 65-68; column 3, lines 1-2 and 29-47, example 1; column 4, lines 3-32, example 2; column 4, lines 60-68 and column 5, lines 1-14, comparison 1; column 5, lines 19-38, comparison 2*). In addition, the Wang publication teaches an optically transparent hydrated sol-gel bioactive glass composition in water, without the presence of an alcohol (page 2671, column 2, lines 11-38; page 2672, column 1, lines 1, 26-27, 47-49 and 57-58; page 2673, column 2, lines 27-31; page 2675, column 2, lines 19-21).

Applicants argue, on page 20, lines 21-23, of the aforementioned Response, that neither the Yamanaka publication, the Wu publication, nor the Wang publication, teach a bioactive glass particulate having particle sizes of less than or equal to 400 μm . In to Applicants argument, none of the aforementioned secondary references are being relied upon to teach a bioactive glass particulate having a specific particle size, as said limitations are anticipated and/or obvious in light of the sole teachings of Shimono '544 patent. The aforementioned secondary references are merely being relied upon to demonstrate the obviousness associated with modifying the bioactive glass particle containing bactericidal cosmetic preparation of the Shimono '544 patent to produce a bactericidal cosmetic preparation comprising bioactive glass particles having a refractive index sufficiently close to that of a liquid carrier so as to impart an undetectable transparent, and therefore "invisible," physical property to said bioactive glass particles within said bactericidal cosmetic composition.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR § 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the

mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR § 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

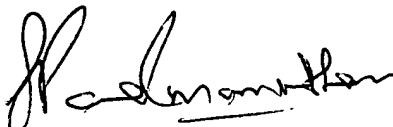
Contact Information

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to David P. Stitzel, Esq. whose telephone number is 571-272-8508. The Examiner can normally be reached on Monday-Friday, from 7:30AM-6:00PM.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Sreenivasan Padmanabhan can be reached at 571-272-0629. The central fax number for the USPTO is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published patent applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished patent applications is only available through Private PAIR. For more information about the PAIR system, please see <http://pair-direct.uspto.gov>. Should you have questions about acquiring access to the Private PAIR system, please contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

David P. Stitzel, Esq.


SREENI PADMANABHAN
SUPERVISORY PATENT EXAMINER